

REMARKS

An Office Action was mailed on September 9, 2004. Claims 1 – 15 are pending in the present application. Applicants amend claims 1, 6, 7, 11, 14 and 15, and add new claim 16. No new matter is added. Support for the amended and new claims may be found, for example, in Applicants' FIG. 26 and in Applicants' specification at page 13, lines 16 – 20 and page 30, line 25 to page 31, line 20.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (U.S. Patent No. 5,586,254). Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Carcerano et al. (U.S. Patent No. 6,308,205). Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Carcerano and U.S. Patent no. 6,041,347 to Harsham et al. Applicants amend claims 1, 6, 7, 11, 14 and 15, and respectfully traverse the rejections.

In amended independent claim 1, for example, Applicants disclose:

A method of controlling a network which includes a plurality of network elements connected via a plurality of links, and provides a plurality of communications services to end-users of the network, said method comprising the steps of:

creating view-configuration information based on network-configuration information with respect to each of the plurality of communications services such that the view-configuration information is related to the network-configuration information, said view-configuration information providing a basis for creating a plurality of communications service-specific views of the network that correspond to the respective communications services, wherein each communications service specific view includes ones of the plurality of network elements and ones of the plurality of links that are required for providing an associated communications service to the end-users of the network; and

displaying selected one or more of the communications service-specific views by presenting each view based on the view-configuration information with respect to each of the communications services, said each view including both or either one of a physical network configuration of the network and a logical network configuration of the network.

(Emphasis added)

In a Response of May 24, 2004, Applicants made the following arguments:

... The Examiners suggest that Kondo explicitly teaches, or at least makes obvious, the generation and display of service-specific views (citing column 7, lines 3 – 23, column 20, lines 3 – 59, column 48, lines 16 – 22, Figs. 1c and 6a – 6c and claim 1 of Kondo). Applicants respectfully disagree.

While Kondo does teach displaying subnetworks and other topological components of a network, Kondo fails to teach or suggest generating and displaying Applicants' claimed service-specific views. In claim 1 of Kondo, for example, reference is made to "physical configuration figure creating means for creating a physical configuration figure of the network based on the data stored in the first database" and "a logical configuration figure creating means for creating a logical configuration figure of the network based on the data stored in the second database."

In Applicants' claims 1 and 11, Applicants' make reference to "service-specific views of a physical network configuration and a logical network configuration", thereby distinguishing "service-specific views" from both physical and logical configurations. In other words, Applicants' service-specific views can be created to show either of a physical configuration or a logical configuration (see, e.g., Applicants' FIGs. 2 and 12a – d). The Examiners suggest that Kondo's claimed "logical configuration figure checking means for determining whether the logical configuration figure satisfies a logical-numeric-condition of a network device" may suggest checking for service-specific conditions. Applicants note that Kondo's claimed logical configuration figure checking means are directed to checking whether a logic configuration satisfies a condition of a device rather than checking which network components are employed to deliver a service. In addition, Applicants further note that Kondo neither discloses nor suggests examples of logical conditions that include service definitions (see, e.g., column 22, lines 16 – 22 of Kondo describing logic data "such as a log of network traffic ..., statistics of a load average of the central processing unit (CPU), a change of used amounts of a disk, a log of an outgoing packet, and the number of virtual terminals to be employed").

The Examiner finds these arguments to be unpersuasive, and continues to suggest that "service-specific-view" may be read broadly to encompass the topographic views

(e.g. building, floor, position) provided by the system of Kondo. The Examiner makes reference, for example, to Kondo's "users query database 300" as displaying "selected service-specific views based on physical and logical network configuration".

Kondo defines database 300 as:

relating to information of the map [and holding] a variety of information for representing the physical configuration of the network and the logical configuration of the network, and [comprising] data 301 relating to information of a layout of floors, data 302 relating to information on buildings, data 303 relating to information on connection of the network among floors, data 304 relating to information of locations of the installation of devices, data 305 relating to connection of the network in a floor, and data 306 relating to information of traffic means.

(Emphasis added)

As indicated above, Applicants amend independent claim 1 to claim a method for creating and displaying view-configuration information for a plurality of communications service-specific views (for example, audio, Internet and video-on-demand service views as illustrated in Applicants' FIG. 2), wherein each communications service specific view includes ones of the plurality of network elements and ones of the plurality of links that are required for providing an associated communications service to the end-users of the network. This capability provides network managers with a means for monitoring and controlling a network according to specific communications service requirements (see, e.g., page 1, lines 14 – 18 of Applicants specification).

By way of comparison, in sharp contrast to Applicants' invention as claimed in amended claim 1, Kondo neither describes generally, nor suggests as a result of describing data stored in database 300, means by which communications service-specific views of a network can be created and viewed. Rather, the views suggested by Kondo are limited to views for specified equipment at specified physical locations. As communications services may be dynamically implemented using various available

network elements at various times, Applicants submit that the location-driven views of Kondo and the communications service-driven views of Applicants' claimed invention are not equivalent. Accordingly, Applicants respectfully submit that amended independent claim 1 is not made obvious by Kondo, and is therefore allowable.

In amended independent claim 11, Applicants disclose:

11. A system for controlling a network including a plurality of network elements and a plurality of links, said system comprising:

a database which stores network-configuration information and view-configuration information such that the view-configuration information is related to the network-configuration information;

a service-management server which attends to registering and updating of the information stored in the database, and defines communications service-specific views of a physical network configuration and a logical network configuration with respect to each of a plurality of communications services provided to end-users of the network, based on the view-configuration information stored in said database, wherein each communications service-specific view includes ones of the plurality of network elements and ones of the plurality of links that are required for providing an associated communications service to the end-users of the network;

a network-management server which collects information on configurations of the network elements and the links as well as information on failures, and informs said service-management server of a change in at least one of the configurations and the failures for a purpose of said updating; and

a client which displays both or either one of the physical network configuration and the logical network configuration with respect to said client's own communications service by selecting one of the communications service-specific views that corresponds to said client's own communications service.

The Examiner acknowledges that Kondo fails to disclose Applicants' claimed service-management server which attends to registering and updating of the information stored in the database, and defines service-specific views of a physical network

configuration and a logical network configuration. The Examiner suggests that Carcerano however teaches these features.

Applicants amend independent claim 11 to recite a service-management server that, inter alia, defines “communications service-specific views of a physical network configuration and a logical network configuration with respect to each of a plurality of communications services provided to end-users of the network, based on the view-configuration information stored in said database, wherein each communications service-specific view includes ones of the plurality of network elements and ones of the plurality of links that are required for providing an associated communications service to the end-users of the network”. Applicants respectfully submit that Carcerano, even in combination with Kondo, fails to teach or suggest Applicants claimed feature for defining such communications service-specific views. While Carcerano teaches means for polling network elements to determine network configuration (see, e.g., column 9, line 15 to column 10, line 24 of Carcerano), neither Carcerano nor Kondo teach or suggest means by which communications service-specific views may be determined and displayed. Accordingly, Applicants respectfully submit that amended independent claim 11 is not made obvious by the combination of Kondo and Carcerano, and is therefore allowable.

As claims 2 - 10 and 12 – 15 respectively depend from allowable claims 1 and 11, Applicant respectfully submits that claims 2 - 10 and 12 – 15 are allowable for at least this reason.

CONCLUSION

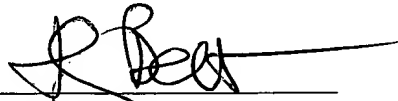
An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1 – 15, including independent claims 1 and 11 and the claims that depend therefrom, stand in

condition for allowance. Passage of this case to allowance is earnestly solicited.

However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Bean', written over a horizontal line.

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